ABSTRACT OF THE DISCLOSURE

A method of designing a semiconductor integrated circuit includes steps of selecting a pair of scan registers to be connected as a scan chain and calculating a beeline distance on hardware from each output terminal of the scan register at the front stage to a scan data input terminal of the scan register at the rear stage. The method further includes steps of selecting the output terminal of the scan register at the front stage having a minimum beeline distance on the basis of the above calculation; determining to connect the selected output terminal with the scan data input terminal of the scan register at the rear stage; and forming the scan chain by connecting each pair of scan registers by using the output terminal determined in the previous step.